

LEPIDOPTERA BREEDING RECORDS FROM
ALPHITONIA SPECIES (RHAMNACEAE)
AT PALUMA, NORTH QUEENSLAND

R.V. JACKSON

Department of Zoology, James Cook University, Townsville, Qld 4811

(Present address: C.R.C. Tropical Rainforest Ecology and Management, Department of
Zoology, James Cook University, Townsville, Qld 4811)

Abstract

Fourteen species of Lepidoptera (12 previously unrecorded) feeding upon three species of *Alphitonia* (Rhamnaceae) from the Paluma area, North Queensland, are documented.

Introduction

Three species of *Alphitonia* grow in the Paluma area (19°00'S 146°12'E, altitude 892 m, 80 km north-west of Townsville, North Queensland). *A. petriei* C.T.White & Braid is a pioneer tree, common along disturbed and undisturbed rainforest margins. *A. whitei* Braid is more shade tolerant and grows in small gaps and the understorey, while *A. excelsa* (A. Curn. ex Fenzl) Reissek ex Benth. occurs in dry sclerophyll communities. To date 11 Lepidoptera species have been recorded as herbivores of *Alphitonia* species. All but one are from *A. excelsa*. These are: *Bucculatrix* sp. (Bucculatricidae), which is a leaf-miner in early stages but later feeds exposed on the leaf surface; *Carmenta chrysophanes* (Meyrick) (Sesiidae), larvae of which bore the inner bark; *Casbia rectoria* Walker (Geometridae), a leaf feeder; the leaf-miner *Leucoptera* sp. (Lyonetiidae); *Opodiphthera austrophela* (Walker) (Saturniidae), another leaf feeder (Common 1990); plus 5 species of Lycaenidae which feed on the leaves or flower buds (Common and Waterhouse 1981). The recorded distributions of *C. chrysophanes* and *C. rectoria* cover the Paluma area. The remaining species, *Aenetus mirabilis* (Rothschild) (Hepialidae), has a stem-boring larva on an unspecified species of *Alphitonia* (Common 1990) but its described location at the edge of rainforest and its geographical range suggest its host is probably *A. petriei*.

At Paluma I observed and reared specimens of 7 lepidopteran families comprising 14 species. These are listed below by family (Table 1). All are folivores and all except one are new records. These are also the first confirmed records from *A. petriei* and *A. whitei*. Voucher specimens of both plants and insects are deposited at the Department of Zoology, James Cook University of North Queensland.

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Table 1. Lepidoptera observed feeding on *Alphitonia* species and reared to maturity.

SPECIES	FAMILY	HOST PLANT	MONTH(S) OBSERVED
<i>Casbia rectaria</i> Walker	Geometridae	<i>A. petriei</i> *	Feb-Aug;
		<i>A. excelsa</i> †	Oct-Nov
		<i>A. whitei</i>	
<i>C. calliorma</i> Turner	Geometridae	<i>A. whitei</i>	Feb-May
		<i>A. petriei</i>	
<i>C. didymosticta</i> Turner	Geometridae	<i>A. petriei</i>	Jun; Aug
<i>C. scardamiata</i> (Warren)	Geometridae	<i>A. petriei</i>	Apr; May; July
<i>Ectropis rufobrunnea</i> Warren	Geometridae	<i>A. petriei</i>	Aug; Dec
<i>Epiphyas ?postvittana</i> (Walker)	Tortricidae	<i>A. petriei</i>	Aug-Oct
		<i>A. excelsa</i>	
<i>Syntherata janetta</i> (White)	Saturniidae	<i>A. excelsa</i>	Feb; Dec
<i>Opodiphthera eucalypti</i> (Scott)	Saturniidae	<i>A. excelsa</i>	Mar
<i>Olene mendosa</i> Hübner	Lymantriidae	<i>A. petriei</i>	Apr
<i>Euproctis ?epidela</i> Turner	Lymantriidae	<i>A. excelsa</i>	Feb; Aug
<i>Orgyia papuana</i> Riotte	Lymantriidae	<i>A. petriei</i>	Mar
<i>Mecytha fasciata</i> (Walker)	Zygaenidae	<i>A. excelsa</i>	Dec
<i>Anaxidia lozogramma</i> Turner	Limacodidae	<i>A. petriei</i>	Dec
<i>Danis hymetus</i> (C.& R. Felder)	Lycaenidae	<i>A. petriei</i>	Feb-June

* where >1 species of *Alphitonia* hosted a herbivore, they are listed in order of relative frequency of use

† previously recorded host plant

References

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